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Two new *Minimelanolocus* species from southern China

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Abstract — *Minimelanolocus linderae* sp. nov. and *M. mori* sp. nov. were discovered from dead branches in southern China. They are described, illustrated, and compared with closely related taxa. The specimens are deposited in Herbarium of Shandong Agricultural University, Plant Pathology (HSAUP) and Mycological Herbarium, Institute of Microbiology, Chinese Academy of Sciences (HMAS).

Key words — anamorphic fungi, taxonomy

During ongoing surveys of tropical and subtropical microfungi from the forests in southern China, two interesting fungi with euseptate conidia and polyblastic conidiogenous cells were collected on dead branches of *Lindera communis* and *Morus alba*. The morphologies of their conidia and conidiogenous cells suggested they are new species of the genus *Minimelanolocus*.

Minimelanolocus linderae Jian Ma & X.G. Zhang, **sp. nov.** Fig. 1

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Fungus anamorphicus. Coloniae in substrato naturali effusae, brunneae vel atrobrunneae, pilosae. Mycelium partim superficiale, partim immersum in substrato, ex hyphis ramosis, septatis, pallide brunneis vel brunneis, laevibus, 1–2 µm crassis compositum. Conidiophora macronematosa, mononematosa, singula, interdum caespitosa, nonramosa, erecta, recta vel flexuosa, septata, laevia, brunnea, apice versus pallidiora, 83–133 µm longa, 2–4.5 µm crassa. Cellulae conidiogenae holoblasticae, polyblasticae, in conidiophoris incorporatae, indeterminatae, sympodialiter extendentes, terminales deinde intercalares, pallide brunneae. Loci conidiogeno inconspicuo vel leviter prominentibus, refractivi. Conidiorum secessio schizolytica. Conidia solitaria, acropleurogena, ellipsoidea vel cylindrica, basi truncata, pallide brunnea, cellulis extimis subhyalinis, laevia, plerumque 4-euseptata, raro 3-euseptata, 26–35 µm longa, 7–9 µm crassa, basi truncata 1–1.5 µm lata.

Type: China, Fujian Province: Mount Wuyi, on dead branches of *Lindera communis* Hemsl. (*Lauraceae*), 15 Aug. 2009, J. Ma, (**Holotype** HSAUP H5113; isotype HMAS146122).

Etymology: in reference to the host genus, *Lindera*.

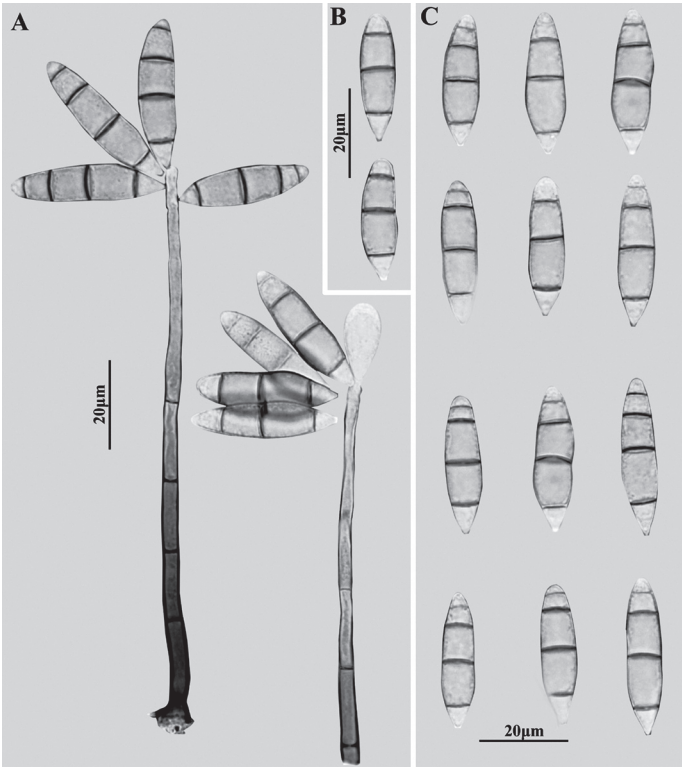

Fig. 1. *Minimelanolocus linderae*. A. Conidiophores with conidia. B, C. Conidia.

Anamorphic fungi. Colonies effused on natural substrate, brown to dark brown, hairy. Mycelium partly superficial, partly immersed, composed of branched, septate, pale brown to brown, smooth-walled hyphae, 1–2 μm thick. Conidiophores differentiated, single, sometimes caespitose, unbranched, erect, straight or flexuous, septate, smooth, brown, paler toward the apex, 83-133 μm long, 2–4.5 μm thick. Conidiogenous cells holoblastic, polyblastic, integrated, indeterminate, sympodially extending, terminal becoming intercalary, pale brown. Conidiogenous loci inconspicuous or slightly prominent, refractive. Conidial secession schizolytic. Conidia solitary, apical and lateral, simple, ellipsoidal or cylindrical, truncate at the base, pale brown except for the end cells which are subhyaline, smooth-walled, mostly 4-euseptate, rarely 3-euseptate, 26–35 μm long, 7–9 μm thick in the broadest part, 1–1.5 μm wide at the truncate base.

Comments – *Minimelanolocus linderae* is similar in conidial shape to *M. magnoliae* K. Zhang & X.G. Zhang (Zhang et al. 2009), *M. bambusae* (N.D. Sharma) R.F. Castañeda & Heredia, and *M. subulifer* (Corda) R.F. Castañeda & Heredia (Castañeda Ruíz et al. 2001). However, conidia of *M. linderae* are narrower than those of *M. magnoliae* (conidia 10–11 μm wide), and larger than those of *M. bambusae* (conidia 15–19 × 6–7 μm) and *M. subulifer* (conidia 12–29 × 3.5–5.5 μm). Moreover, in *M. linderae* mature conidia are 3–4-euseptate, while those of the three known species are mostly 3-septate. In addition, the mature conidia of *M. linderae* are pale brown, but the cell at each end is subhyaline, which is obviously different from those of *M. magnoliae*, *M. bambusae* and *M. subulifer*.

Minimelanolocus mori Jian Ma & X.G. Zhang, **sp. nov.** Fig. 2

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Fungus anamorphicus. Coloniae in substrato naturali effusae, brunneae vel atrobrunneae, pilosae. Mycelium partim superficiale, partim immersum in substrato, ex hyphis ramosis, septatis, pallide brunneis vel brunneis, laevibus, 1.5–3 μm crassis compositum. Conidiophora macronematosa, mononematosa, singula, nonramosa, erecta, recta vel flexuosa, septata, laevia, atrobrunnea, apice versus pallidiora, 150–280 μm longa, 3.5–5.5 μm crassa. Cellulae conidiogenae holoblasticae, polyblasticae, in conidiophoris incorporatae, indeterminatae, sympodialiter extendentes, terminales deinde intercalares, brunneae. Loci conidiogeno inconspicuo vel leviter prominentibus, subobscurus. Conidiorum secessio schizolytica. Conidia solitaria, acropleurogena, simplicia, ellipsoidea vel cylindrica, apice rotundata, ad basim truncata, pallide brunnea, cellulis apicali subhyalina vel pallide brunnea, laevia, plerumque 3-euseptata, raro 2-euseptata, 19–25 μm longa, 7.5–10 μm crassa, basi truncata 2.5–3.5 μm lata, cellulis basi 8.5–11 μm longa.

Type: China, Hainan Province: tropical forest of Bairentan, on dead branches of *Morus alba* L. (*Moraceae*), 8 Dec 2010, J. Ma, (**Holotype** HSAUP H5499–1; isotype HMAS 146123).

Etymology: in reference to the host genus, *Morus*.

Anamorphic fungi. Colonies effused on natural substratum, brown to dark brown, hairy. Mycelium partly superficial, partly immersed, composed of branched, septate, pale brown to brown, smooth-walled hyphae, 1.5–3 μm thick. Conidiophores differentiated, single, solitary, unbranched, erect, straight or flexuous, septate, smooth, dark brown, paler toward the apex, 150–280 μm long, 3.5–5.5 μm thick. Conidiogenous cells holoblastic, polyblastic, integrated, indeterminate, sympodially extending, terminal becoming intercalary, brown. Conidiogenous loci inconspicuous or slightly prominent, somewhat obscure. Conidial secession schizolytic. Conidia solitary, apical and lateral, simple, ellipsoidal or cylindrical, apex rounded, base truncate, brown except for the apical cell which is subhyaline or pale brown, smooth-walled, mostly 3-euseptate, rarely 2-euseptate, 19–25 μm long, 7.5–10 μm thick in the broadest part, 2.5–3.5 μm wide at the truncate base, basal cell 8.5–11 μm long.

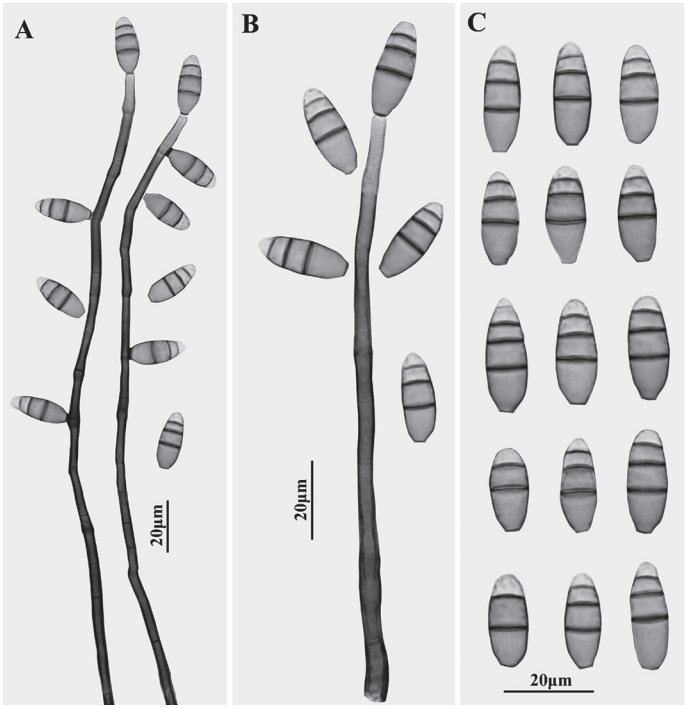

Fig. 2. *Minimelanolocus mori*. A, B. Conidiophores and conidia. C. Conidia.

Comments – The conidia of *Minimelanolocus mori* resemble those of *M. magnoliae*, *M. endospermi* Jian Ma & X.G. Zhang (Ma et al. 2008), and *M. hughesii* (M.B. Ellis) R.F. Castañeda & Heredia (Castañeda Ruíz et al. 2001) in shape. However, *M. mori* differs from *M. magnoliae* (conidia 29–38 × 10–11 μm, basal scar 1–2 μm wide) in its smaller conidia with wider basal scar, and from *M. hughesii* (conidia 12–18 × 4.5–6 μm) in having larger conidia. Moreover, *M. mori* can be separated from *M. endospermi* (conidia 20–30 × 9–12 μm, mainly 2-euseptate) by its slightly smaller mainly 3-euseptate conidia. In addition, the conidia of *M. mori* have a much longer basal cell than is seen in the other three species.

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